To: Jim Snedeker
From: Edward Ford
Subject: September Progress Report

M/700 Detachable Magazine

A high speed video of the Model 700 DM was taken to assist Jim Ronkainen in analyzing the magnum caliber feeding problems. The video identified that the feed lips were not holding the cartridge sufficiently, thus causing the nose of the cartridge to pop up as soon as the bolt opened. Jim has altered the feed lip design and prototype parts are on order.

M/7400 22-250 Orifice Size

Bolt velocity tests were conducted on four M/7400 22-250 caliber rifles to determine the optimum orifice size. The test consisted of increasing the orifice diameter until the average terminal velocity for five shots exceeded 150 in/sec for the slowest ammunition type. Five different ammunition types were tested including Remington, Winchester, and Federal. The optimum orifice size was found to be 0.094" in diameter.

Bolt Velocity Software

The software program written to enable the Compaq Personal Computer to control the Tektronix 2520 Data Acquisition System is operational. The program is written in Visual Basic and uses "pull down" menus to input data. The majority of September was spent debugging and documenting this program. There is one subroutine remaining which needs to be documented before the program is released to the test lab technicians.